

AMENDMENTS TO THE CLAIMS

1-12. (Canceled)

13. (Currently Amended) A method of cleaning a substrate of a liquid crystal display panel comprising:

moving the substrate continuously in a linear direction;
jetting deionized water that carries ultrasonic waves onto a side surface of the substrate;
brushing the side surface of the substrate with a side surface of a cylindrical brush that rotates based on an central axis of rotation, wherein the axis of rotation is substantially parallel to ~~along with~~ the linear direction of the substrate movement; and
cleaning upper and lower surfaces of the substrate.

14. (Canceled).

15. (Canceled)

16. (Previously Presented) The method of claim 13, wherein cleaning the upper and lower surfaces of the substrate comprises:

rotating cleaning brushes on the upper and lower surface of substrate.

17. (Canceled)

18. (Previously Presented) The method of claim 16, wherein the cleaning brushes are arranged at the upper and lower surfaces of the substrate, respectively.

19-22. (Canceled)

23. (Currently Amended) A method of cleaning a substrate of a liquid crystal display panel comprising:

removing foreign substances on a first side surface of the substrate by jetting deionized water that carries ultrasonic waves onto the first side surface of the substrate with a first water jet device and brushing the first side surface of the substrate with cleaning brushes that attach to a

~~side surface of a cylindrical body and rotate based on an central axis of rotation~~ while moving the substrate continuously in a linear direction;

removing foreign substances on a second side surface by jetting deionized water that carries ultrasonic waves onto the second side surface of the substrate with a second water jet device; and

removing foreign substances on the upper and lower surfaces of the substrate by brushing the upper and lowers surfaces of the substrate with brushes.

24. (Currently Amended) The method of claim 23 22, wherein the water jet device causes vibration on the side surface of the substrate.

25. (Currently Amended) The method of claim 24 23, wherein the vibration is generated by ultrasonic waves.

26-27. (Canceled)

28. (Currently Amended) A method of cleaning a substrate having an upper surface and a lower surface separated by at least two opposing side surfaces, the method comprising:

moving the substrate continuously in a linear direction;

brushing at least two opposing side surfaces with cleaning brushes that ~~attach to a side surface of a cylindrical body and rotate based on an central axis of rotation~~ along the at least two opposing side surfaces of the substrate in substantially a straight line;

cleaning at least one of the upper and lower surfaces; and

spraying water that carries ultrasonic waves onto the at least two brushed side surfaces.

29. (Previously Presented) The method of claim 28, further including brushing at least two opposing side surfaces before brushing at least one of the upper and lower surfaces.

30. (Previously Presented) The method of claim 28, wherein the water includes deionized water.

31. (Canceled)

32. (Previously Presented) The method of claim 28, wherein cleaning at least one of the upper and lower surfaces includes brushing the at least one of the upper and lower surfaces.

33. (New) The method of claim 23, wherein removing foreign substances on a second side surface includes brushing the second side surface of the substrate with cleaning brushes that rotate based on a axis of rotation.

34. (New) The method of claim 28, wherein the at least two opposing side surfaces are substantially parallel.

35. (New) The method of claim 28, wherein the axis of rotation is substantially parallel to the linear direction of the substrate movement.

36. (New) The method of claim 28, further including brushing at least one of the upper and lower surfaces before spraying water that carries ultrasonic waves onto the at least two brushed side surfaces.

37. (New) The method of claim 28, further including brushing at least one of the upper and lower surfaces with a plurality of cleaning brushes arranged at each of the at least one of the upper and lower surfaces.

38. (New) A method of cleaning a substrate having an upper surface and a lower surface separated by a first side surface and a second side surface substantially parallel to the first side surface, the method comprising:

moving the substrate continuously in a linear direction;

removing foreign substances on the first side surface of the substrate by brushing the first side surface of the substrate with a first cleaning brush that rotates and jetting fluid that carries ultrasonic waves onto the first brushed side surface of the substrate with a first jet device;

removing foreign substances on the second side surface of the substrate by brushing the second side surface of the substrate with a second cleaning brush that rotates and jetting fluid

that carries ultrasonic waves onto the second brushed side surface of the substrate with a second jet device; and

cleaning at least one of the upper and lower surfaces.

39. (New) The method of claim 38, further including rotating brushes on at least one of the upper and lower surfaces of the substrate.

40. (New) The method of claim 38, further including rotating brushes on at least one of the upper and lower surfaces of the substrate with a plurality of cleaning brushes arranged at each of the at least one of the upper and lower surfaces.

41. (New) The method of claim 38, further including rotating brushes on at least one of the upper and lower surface of the substrate after brushing the first and second side surfaces of the substrate.

42. (New) The method of claim 38, further including rotating brushes on at least one of the upper and lower surface of the substrate after jetting fluid that carries ultrasonic waves onto the first and second brushed side surfaces of the substrate

43. (New) The method of claim 38, wherein the fluid includes water.

44. (New) The method of claim 38, wherein the fluid includes deionized water.